## **RECEIVED** NO. 6177 P. 1/8 CENTRAL FAX CENTER

## FEB 0 2 2007

FAX TRANSMISSION
·
DATE:
PTO IDENTIFIER: Application Number 10/584,785 Patent Number
Inventor: Thorsten Johann et al.
MESSAGE TO: US Patent and Trademark Office
FAX NUMBER: (571) 273-8300
FROM: CONNOLLY BOVE LODGE & HUTZ LLP
Ashley I, Pezzner
PHONE: (302) 658-9141
Attorney Dkt. #: 13156-00059-US
PAGES (Including Cover Sheet): 8
CONTENTS: Transmittal Of Translation Of International Preliminary Report On Patentability (1 page) Translation Of International Preliminary Report On Patentability (5 pages) Certificate of Transmission (1 page)
If your receipt of this transmission is in error, please notify this firm immediately by collect call to sender at (302) 658-9141 and send the original transmission to us by return mail at the address below.
This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated agent is strictly prohibited.
CONNOLLY BOVE LODGE & HUTZ LLP  1007 North Orange Street, P.O. Box 2207, Wilmington, Delaware 19899  Telephone: (302) 658-9141 Facsimile: (302) 658-5614
·

Application No.: 10/584,785 Docket No.: 13156-00059-US

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED CENTRAL FAX CENTER

In re Patent Application of:

F

FEB 0 2 2007

Thorsten Johann et al.

Application No.: 10/584,785

Confirmation No.: N/A

Filed: July 17, 2006

Art Unit: N/A

Examiner: Not Yet Assigned

For: METHOD FOR THE PRODUCTION OF BUTADIENE

# TRANSMITTAL OF TRANSLATION OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

MS PCT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith an English translation of the International Preliminary Report On Patentability ("IPRP") issued in the corresponding international application. The international Examiner has deemed claims 1-3 to have novelty, inventive step, and industrial applicability. The reference cited in the IPRP has been cited by Applicant in an Information Disclosure Statement filed with the above-captioned application.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 13156-00059-US.

Respectfully submitted

Ashley I. Pezzner

Registration No.: 35,646

CONNOLLY BOVE LODGE & HUTZ LLP

1007 North Orange Street

P.O. Box 2207

Wilmington, Delaware 19899

(302) 658-9141

Attorney for Applicant

519055\_1

# RECEIVED CENTRAL FAX CENTER

FEB 0 2 2007

Application No. (if known): 10/584,785

Attorney Docket No.: 13156-00059-US

## Certificate of Transmission under 37 CFR 1.8

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office.

on February 2,2007

Typed of printed name of person signing Certificate

Sign/ature

Registration Number, If applicable

(302) 658-9141 Telephone Number

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

Transmittal Of Translation Of International Preliminary Report On Patentability (1 page)

Translation Of International Preliminary Report On Patentability (5 pages)

# TRANSLATION

#### PATENT COOPERATION TREATY

#### PCT

#### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's o	agent's file referen 719PC	ce	FOR FURTHER	ACTION	See Form PCT/IPEA/416		
International application No.			International filing of	late (day/month/year)	Priority date (day/month/year)		
PCT/E	PCT/EP2004/014834   30.12.2004   30.12.2003						
International	Patent Classificatio	n (IPC) or natio	onal classification and	J IPC			
C07C5	/533, C07	C11/167	7				
Applicant BASF	ktienges	ELLSCHA	<b>\</b> FT				
			ninary examination re c applicant according		nternational Preliminary Examining Authority		
2. This	REPORT consists	of a total of _	5	sheets, including	this cover sheet.		
3, Thi	report is also acco	mpanied by Al	NEXES, comprising	3			
٠.	(sent to the	annlicant and t	to the International B	ureau) a total of	sheets, as follows:		
	sheets	of the descript	tion, claims and/or dr	awings which have been as	needed and are the basis for this report and/or e 70.16 and Section 607 of the Administrative		
	sheets	which superse			iders contain an amendment that goes beyond in item 4 of Box No. I and the Supplemental		
ъ.	(sent to the	International B	Bureau only) a total of	(indicate type and number	of electronic carrier(s))		
			-	` '			
			readable form only, ative Instructions).	as indicated in the Supplem	containing a sequence listing and/or tables nental Box Relating to Sequence Listing (see		
4. This	report contains ind	ications relatin	g to the following ite	ms:			
$\boxtimes$	Box No. I	Basis of the t	report				
	Box No. II	Priority					
	Bex No. III	Non-establis	hment of opinion with	regard to novelty, inventiv	ve step and industrial applicability		
	Box No. IV	Lack of unity	y of invention				
$\boxtimes$	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:						
$\boxtimes$	Box No. VI	Certain docu	ments cited				
	Box No. VII Certain defects in the international application						
	Box No. VIII Certain observations on the international application						
Date of submission of the demand Date of completion of this report							
Name and mai	Name and mailing address of the IPEA/EP			Authorized officer			
	•			**			
Facsimile No.				Telephone No.			

Form PCT/IPEA/409 (cover sheet) (January 2004)

	***	TOTAL		International application No.
	INTERN	ATIONAL PRELIMINARY REPORT ON PATENTA	ABICITY	PCT/EP2004/014834
Во	x No. I	Basis of the report		
ı.	indicated und			
		oort is based on translations from the original language into s the language of a translation furnished for the purposes o		ige
	ie	nernational search (Rule 12.3 and 23.1(b))		
		ablication of the international application (Rule 12.4)	<b>a</b> .	
2.		ternational preliminary examination (Rule 55.2 and/or 55. o the elements of the international application, this report		ment shorts which have been furnished to the
~	receiving Offi this report):	ce in response to an invitation under Article 14 are refer	rred to in this report	as "originally filed" and are not annexed to
	Uhe inter	national application as originally filed/furnished		
	the desc	ription:		
	bage:	1-18		as originally filed/furnished
	pages*	recei	ived by this Authority	On
	pages*	recei	ived by this Amhority	ou
	the clain	•		
	nos.	1-3		as originally filed/furnished
	1105.°			gether with any statement) under Article 19
	dos.* _	recei		
	*400	recei	ved by this Authority	on
	the draw	ings:		
	sheets			as originally filed/furnished
	sheets*	recci		
	sbeets**	recei		
	a sequen	ce listing and/or any related table(s) - see Supplemental B	ox Relating to Sequen	co Listing.
3.		ndments have resulted in the cancellation of:		
	L the	description, pages		· · · · · · · · · · · · · · · · · · ·
		claims, nos.	<del></del>	
		drawings, sheets/figs		
		sequence listing (specify):	·	
		table(s) related to sequence listing (specify):		
4.		nt has been established as if (some of) the amendments a been considered to go beyond the disclosure as filed, as i		
	the	description, pages		•
	L the	claims, nos.		
	L the	drawings, sheets/figs	·	
	Libe	sequence listing (specify):		
	шапу	table(s) related to sequence liming (specify):	<u> </u>	
#	If item 4 applies	s, some or all of those sheets may be marked "superseded.		

Form PCT/IPEA/409 (Box No. I) (January 2004)

INTERNATIONAL P	PRREEMINARY	REPORT ON P.	ATTENTABILETY

International application No.
PCT/EP2004/014834

Box	Box No. V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explonations supporting such statement					
t.	Statement					
	Novelty (N	)	Claims	1-3		_ YES
			Claims			NO.
	Inventive st	ep (IS)	Claims	1-3		YES
			Claims			NO
	Indostrial a	pplicability (IA)	Claims	1-3		YES
			Claims			NO

Citations and explanations (Rule 70.7)

This report makes reference to the following document:

D1: GB 628 686 A (UNIVERSAL OIL PRODUCTS COMPANY)
2 September 1949 (1949-09-02)

The present application relates to a method of producing butadiene from n-butane, said method comprising steps (A)-(F) (see claim 1). D1 is the closest prior art and also discloses a method of producing butadiene. D1 differs from the subject matter of claim 1 in that the product stream from the first dehydrogenation zone is divided into two fractions and only the n-butene fraction is fed to the second dehydrogenation stage (see claims 1 to 7, page 2, right-hand column, line 102 ff.). In contrast thereto, in claim 1, the product stream from the first dehydrogenation zone is fed to the second dehydrogenation stage without fractionation.

The technical problem is considered to be that of providing another method of producing butadiene. The solution is described in claim 1 and is based on the fact that the product stream from the first dehydrogenation zone is fed to the second dehydrogenation stage without

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY	ľ
---	---

International application No.
PCT/EP2004/014834

=	201,112001,014034
Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	ionation. A person skilled in the art would not be
able t	to derive the feeding of the product stream from the
	dehydrogenation zone to the second dehydrogenation
stage	without fractionation from the closest prior art
D1.	•
÷	
	·

INTE	PRATIONAL PRELIMINARY RE	ው የሰውተ ሲህ የልተየ <u>ለ</u> ምል <del>የነ</del> ነ	. 11		ipplication No.		
INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY				PCT/EP2004/014834			
Box No. VI	Certain documents cited	,		• • • •			
I. Certain pe	ablished documents (Rule 70, 10)						
	Application No. Prient No.	Publication date (day/month/year)	Filing (day/mon	date th/vear)	Priority date (valid claim)(day/month/year)		
		(s-y) has saw juday	(0.3/110/1	,,c.z.,	Transport years		
			*				
• •		•	·		·** =· . , .		
. Non-writte	en disclosures (Rule 70.9)	•					
	Kind of non-written disclosure	Date of non-written dis-	alomee		of written disclosure to non-written disclosure		
	Killa of holl-wither disclosure	(day/month/)rear		- tetering	(day/momb/year)		
	•						
	•			•			
i∩>-2∩(	04/007408						
0 R-200	J3, 00/300						